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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,096	09/03/2004	Naoki Tada	450100-04423	2052

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EXAMINER	
ENTEZARI, MICHELLE M	
ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,096	TADA ET AL.	
	Examiner	Art Unit	
	MICHELLE ENTEZARI	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/09 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **1, 3, 6, 11, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 2002/0149621 A1) in view of Anft et al. (US 7146005 B1).

In regard to Claim 1, Yamaguchi et al. describe an operation means rotatable around a rotation axis and having a rotation body which can be pressed in a direction substantially in parallel with the rotation axis ([0089]). There is also a rotation detection means for detecting rotation of said rotation body depicted, where "means for" language is noted, and taken from page 11, lines 5 – 15 of the applicant's specification to mean conductive materials used to detect a change in the electrical state detects the rotation of the rotation body. Yamaguchi et al. use conductive materials [0112] – [0113] and detect pulse-like output voltage signals corresponding to the rotation of the dial [0114]. A press detection means for detecting a movement of said rotation body (movement interpreted as a press) again uses "means for" language, and is taken from page 13, lines 1 – 20 to indicate pressing on the rotation input section presses a protrusion which in turn depresses buttons, which detect the pressing operation. A press detection operation that is detected as a system input, which includes a protrusion which presses down onto a contact, is indicated in Paragraphs [0090], [0109], and [0139]. A display control means for controlling display of an image, and characterized in that said display control means (the jog dial) rotates (Paragraph [0164]), and displays said image in accordance with the rotation of said rotation body (enlarges or compresses the image in

accordance with the rotation of the rotation body(Paragraph [0164])) detected by said rotation detection means and switches and displays the said image in accordance with a result of detection by said press detection means is also disclosed. The "means for" language here is taken to indicate page 15, lines 1 – 10 and page 16, lines 1 - 5 of the specification, where the dial rotation and button pressing can change the display of an image. Yamaguchi et al. disclose their invention is an image processing device and method that carries out processing based on user input operations such as pressing and rotation (Paragraph [0002]), and the disclosure reiterates a user can operate on an image using these rotation and press commands in (Paragraph [0164]). The display of an image of a menu can be switched in accordance with a result of the detection by said press detection means ("If [select/back] is pressed on the jog dial, the information processing device is caused to execute the selected menu item. If [select/back] is pressed longer by using the jog dial, the status shifts back to the list view status L" Paragraph [0077]).

Yamaguchi et al. do not explicitly disclose a press detection means for *detecting a movement of said rotation body in the direction parallel with the rotation axis.*

Anft et al. teach an input device for a telephone (title) showing both a rotation motion (13, 14, fig. 1), and a pressing motion in parallel with the rotation axis (16 and 17 are parallel to 12, the rotation axis, fig. 1), and a selection can be made by pressing in this manner and can exit from a menu or delete a character in this way (col. 2, lines 25-35,

col. 3, lines 25-35), which indicates the image display is switched [exiting from a menu for instance] in accordance with a result of press detection.

It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the press method of Anft with the capabilities already present in Yamaguchi et al., because Anft teaches this press detection in the transverse direction to the rotation reduces the amount of space required, and reduces the probability of incorrect control operations (col. 2, lines 35-50).

In regard to Claim 3, Yamaguchi et al. also disclose a press detection operation that is detected as a system input, which includes a protrusion which presses down onto a contact, is indicated in Paragraphs [0090], [0109], and [0139]. Yamaguchi et al. disclose their invention is an image processing device and method that carries out processing based on user input operations such as pressing and rotation (Paragraph [0002]), The pressing operation in particular is used to choose an accessory from a menu (such as paint, which is a form of image processing) (Paragraph [0159]). A movement is interpreted here as a pressing movement.

In regard to Claim 6, Yamaguchi et al. describe the image processing apparatus further having a timer means for measuring a time period for which said rotation axis is pressed ([0147]), and characterized in that said display control means switches said processing on the basis of the time period for which said rotation axis is pressed

measured by said timer means when said press detection means detects the press of said rotation axis. ("If [select/back] is pressed on the jog dial, the information processing device is caused to execute the selected menu item. If [select/back] is pressed longer by using the jog dial, the status shifts back to the list view status L." Paragraph [0077]; press status can make the processing take different paths [0149-0150], it has been previously explained pressing the jog dial affects the image processing function chosen) A movement is interpreted here as a pressing movement.

In regard to Claim 11, Yamaguchi et al. describe an operation means rotatable around a rotation axis and having a rotation body which can be pressed in a direction substantially in parallel with the rotation axis ([0089]). Yamaguchi et al. also describe a rotation detection means for detecting rotation of said rotation body depicted, where "means for" language is noted, and taken from page 11, lines 5 – 15 of the applicant's specification to mean conductive materials used to detect a change in the electrical state detects the rotation of the rotation body. Yamaguchi et al. use conductive materials [0112] – [0113] and detect pulse-like output voltage signals corresponding to the rotation of the dial [0114]. A press detection means for detecting a press of said rotation body again uses "means for" language, and is taken from page 13, lines 1 – 20 to indicate pressing on the rotation input section presses a protrusion which in turn depresses buttons, which detect the pressing operation. A press detection operation that is detected as a system input, which includes a protrusion which presses down onto

a contact, is indicated in Paragraphs [0090], [0109], and [0139]. A movement is interpreted here as a pressing movement. The program is in the title and [0014].

Yamaguchi et al. do not explicitly disclose a press detection means for *detecting a movement of said rotation body in the direction parallel with the rotation axis.*

Anft et al. teach an input device for a telephone (title) showing both a rotation motion (13, 14, fig. 1), and a pressing motion in parallel with the rotation axis (16 and 17 are parallel to 12, the rotation axis, fig. 1), and a selection can be made by pressing in this manner and can exit from a menu or delete a character in this way (col. 2, lines 25-35, col. 3, lines 25-35), which indicates the image display is switched [exiting from a menu for instance] in accordance with a result of press detection.

It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the press method of Anft with the capabilities already present in Yamaguchi et al., because Anft teaches this press detection in the transverse direction to the rotation reduces the amount of space required, and reduces the probability of incorrect control operations (col. 2, lines 35-50).

In regard to Claim 12, Yamaguchi et al. describe a display control means for controlling display of an image, characterized in that said display control means rotates and displays said image in accordance with the rotation of said rotation body detected

by said rotation detection means and switches and displays the said image in accordance with a result of detection by said press detection means is also disclosed. The "means for" language here is taken to indicate page 15, lines 1 – 10 and page 16, lines 1 - 5 of the specification, where the dial rotation and button pressing can change the display of an image. Yamaguchi et al. disclose their invention is an image processing device and method that carries out processing based on user input operations such as pressing and rotation (Paragraph [0002]), and the disclosure reiterates a user can operate on an image using these rotation and press commands in Paragraph [0164]. The display of an image of a menu can be switched in accordance with a result of the detection by said press detection means. ("If [select/back] is pressed on the jog dial, the information processing device is caused to execute the selected menu item. If [select/back] is pressed longer by using the jog dial, the status shifts back to the list view status L." Paragraph [0077]) The

Yamaguchi et al. do not explicitly disclose a press detection means for *detecting a movement of said rotation body in the direction parallel with the rotation axis.*

Anft et al. teach an input device for a telephone (title) showing both a rotation motion (13, 14, fig. 1), and a pressing motion in parallel with the rotation axis (16 and 17 are parallel to 12, the rotation axis, fig. 1), and a selection can be made by pressing in this manner and can exit from a menu or delete a character in this way (col. 2, lines 25-35,

col. 3, lines 25-35), which indicates the image display is switched [exiting from a menu for instance] in accordance with a result of press detection.

It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the press method of Anft with the capabilities already present in Yamaguchi et al., because Anft teaches this press detection in the transverse direction to the rotation reduces the amount of space required, and reduces the probability of incorrect control operations (col. 2, lines 35-50).

5. **Claim 2 is** rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 2002/0149621 A1) and Anft et al. (US 7146005 B1) as applied to Claim 1 above, further in view of Tatsuya et al. (JP 2001-184158A).

The press detection means described by Yamaguchi et al. is not capable of detecting the press at a plurality of points of said rotation body, and said display control means moves and displays said image corresponding to a position where said press detection means detects the press.

The press detection means described by Tatsuya et al. allows for multiple buttons at multiple positions in the rotating dial to be tracked (Drawing 24, 11 (a) – 11 (d), and Paragraph [0090]), and the operations of the user on the dial are displayed as a cursor on the display screen (Paragraph [0028])

It would have been obvious at the time of the invention to one skilled in the art to combine the use of press detection at multiple points in a dial as described in Application JP 2001-184158A with the dial with one press detector as described by Yamaguchi et al. and Anft et al., because the addition of more buttons allows for a greater number of image processing operations.

6. **Claims 4 - 5, and 7 - 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 2002/0149621 A1) and Anft et al. (US 7146005 B1) as applied to claim 3 above, further in view of Mugura et al. (US 2002/0054106 A1).

In regard to Claims 4 and 5, Yamaguchi et al. describe using a jog dial to select an application from a list of jog-dial compatible application software. (Paragraph [0163]) In one application described, the rotating member when rotated in one direction enlarges the image, and when rotated in the opposite direction, contracts the image. (Paragraph [0164]) This allows the predetermined application program having the image display function compatible with the jog dial to display the image on the display screen and scale the image using the jog dial. (Paragraph [164])

Yamaguchi et al. do not describe rotating and displaying said image in accordance with the rotation of said rotation body detected by said rotation detection means in a case where a mode of said image processing apparatus is the rotation mode.

Mugura et al. show a selectable graphic image on a display screen, a cursor that allows the graphic image to be positioned, and rotation of the jog dial results in the corresponding rotation of the graphic image on the display screen. (Paragraph [0034])

It would have been obvious to add the image rotation function using a jog dial as in Mugura et al. with the image processing suite of operations performed by the jog dial as in Yamaguchi et al. and Anft et al., as image rotation is frequently needed in image processing.

In regard to Claim 7, Yamaguchi et al. do not describe switching a mode of said image processing apparatus from said rotation mode to said resize mode in a case where the time period for which said rotation axis is pressed measured by said timer means is longer than said predetermined time period.

Yamaguchi et al. are able to detect how long the dial is pressed and change the system operation based on the duration of time the dial is pressed (determines actions based on if the press is greater or less than a predetermined time). ([0077], [0147]). A press on the jog button can select between different jog-dial enabled software functions. [0163]

It would have been obvious at the time of the invention to one skilled in the art to combine the variation in press times on the jog dial, as described by Yamaguchi et al.,

with changing between image analysis programs, as this function is already used to change between different menus in the current embodiment, and the addition of the image rotation function from the invention described by Mugura et al. would require a user-friendly a method to access this feature.

In regard to Clam 8, Yamaguchi et al. and Anft et al. do not describe a display control means that controls displaying of a planar image as said image and displays said planar image after rotating in a counterclockwise direction or a clockwise direction around a center of the image in accordance with the rotation of said rotation body detected by said rotation detection means.

Mugura et al. describes a system in which the selectable graphic image is positionable substantially in the center of the display screen. [0037] Rotation of the jog dial results in the corresponding rotation of the graphic images in the display screen. [0034] Based on the image of the jog dial 28, and the arrows corresponding to the directions the dial can rotate, the Examiner believes based on these arrows shown for jog dial 28 in Figures 1 - 3 that the jog dial turns clockwise and counterclockwise. As the jog dial rotates clockwise and counterclockwise, and the rotation of the jog dial results in the corresponding rotation of the graphic images in the display screen, this means the image will be rotated in a clockwise and counterclockwise manner.

It would have been obvious to combine this oriented rotation as described by Magura et al. with the image processing operations described by Yamaguchi et al. and Anft et al., as this is a user friendly method of rotating an image, and the device already has the jog-dial function required for this process.

In regard to Claim 9, Yamaguchi et al. and Anft et al. do not describe a display control means controls displaying of a three-dimensional image in a virtual space as said image and displays said three-dimensional image after rotating in a horizontal plane in said virtual space setting a current position in said virtual space as reference in accordance with the rotation of said rotation body detected by said rotation detection means.

Mugura et al. describe control means controls displaying of a three-dimensional image in a virtual space as said image and displays said three-dimensional image after rotating in a horizontal plane in said virtual space setting a current position in said virtual space as reference in accordance with the rotation of said rotation body detected by said rotation detection means. ("Menu 22 is scrollable, appears to occupy three-dimensional space, and appears to be a rotatable wheel including a rounded wheellike surface in a wheel metaphor." [0034]

It would have been obvious to one skilled in the art at the time of the invention to add a three-dimensional representation of the image, as described by Mugura et al., to the

device described by Yamaguchi et al and Anft et al., as a three-dimensional representation is often more physically intuitive.

7. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 2002/0149621 A1) and Anft et al. (US 7146005 B1) and Mugura et al. (US 2002/0054106 A1) as applied to claim 9 above, and further in view of Tatsuya et al. (JP 2001-184158A).

Yamaguchi et al. disclose an invention that scales an image up and down according to rotation of the jog dial. [0164] Yamaguchi et al. also disclose a means for press detection. ([0077], [0147])

Yamaguchi et al. do not describe press detection means is capable of detecting the press at a plurality of points of said rotation body, and said display control means is scales up/down and displays said three-dimensional image corresponding to a position where said press detection means detects the press.

The press detection means described in Tatsuya et al. allow for multiple buttons at multiple positions in the rotating dial to be tracked (Drawing 24, 11 (a) – 11 (d), and Paragraph [0090]), and the operations of the user on the dial are displayed as a cursor on the display screen (Paragraph [0028])

It would have been obvious at the time of the invention to one skilled in the art to combine the use of press detection at multiple points in a dial as described in Tatsuya et al. with the dial with one press detector as described by Yamaguchi et al. and Anft et al., because the addition of more buttons allows for a greater number of operations.

Mugura et al. describe control means controls displaying of a three-dimensional image in a virtual space as said image and displays said three-dimensional image after rotating in a horizontal plane in said virtual space setting a current position in said virtual space as reference in accordance with the rotation of said rotation body detected by said rotation detection means. ("Menu 22 is scrollable, appears to occupy three-dimensional space, and appears to be a rotatable wheel including a rounded wheellike surface in a wheel metaphor." [0034]

It would have been obvious to one skilled in the art at the time of the invention to add a three-dimensional representation of the image, as described by Mugura et al., to the device described by Yamaguchi et al, as a three-dimensional representation is often more physically intuitive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELLE ENTEZARI whose telephone number is (571)270-5084. The examiner can normally be reached on M-Th, 7:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571)272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle Entezari/
Examiner, Art Unit 2624

/Vikkram Bali/

Supervisory Patent Examiner, Art Unit 2624